

Three lessons from two mice



1 part per billion DES

100 ppb causes weight loss

Exposure in the womb
leads to obesity in adults

Newbold *et al.* 2005, 2007⁷⁷

Same strain of mice
Same caloric intake
Same activity levels

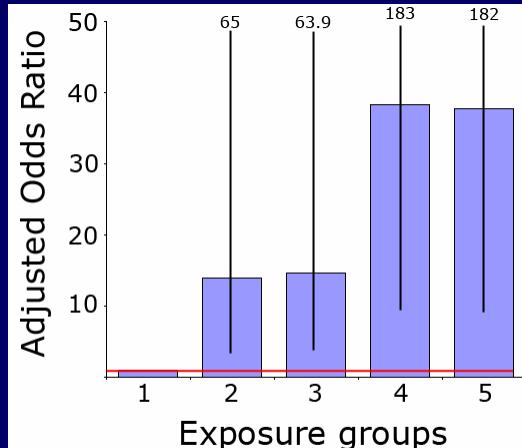


Environmental Health Sciences

Type II Diabetes

Diabetes risk:
NHANES data
2,016 subjects

6 POPs:
PCB153 0.001
Heptadioxin 0.007
OCDdioxin 0.094
Oxychlordane 0.001
DDE 0.001
trans Nonachlor 0.001

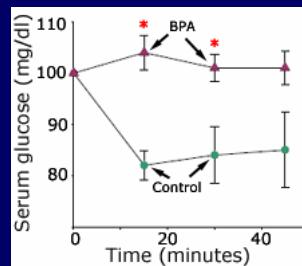
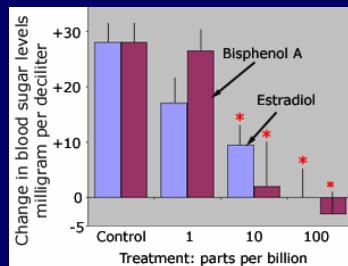


Lee *et al.* 2006



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Bisphenol A causes insulin resistance in mice



Rapid response:
30 min after addition of
BPA or estradiol:
Blood sugar drops
because insulin increased

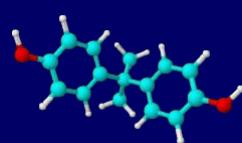
Slower response:
After 4 days BPA-treated
animals no longer
respond to insulin

Alonso Magdelena *et al.* 2006

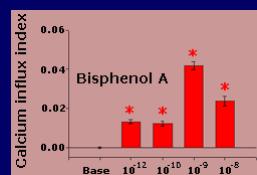


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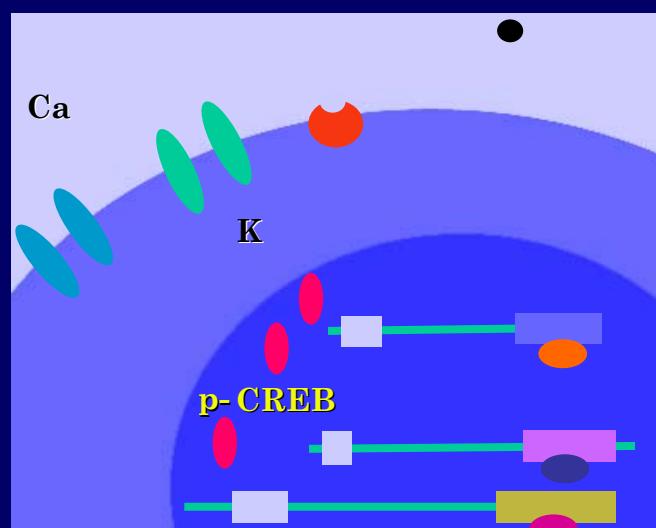
Non-genomic action of BPA



Wozniak *et al.* 2005



95% of Americans



Quesada *et al.* 2003



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